

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Henri Arnold De Bruyn et al.

Examiner: Magali P. Theodore

Serial No.: 10/501,356

Art Unit: 1791

Filed: February 11, 2005

Docket: 18005

For: BINDER COMPOSITION AND METHOD FOR TREATING
PARTICULATE MATERIAL

Confirmation No.: 7585

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION OF HENRI A. DE BRUYN

Sir:

I, Henri A. de Bruyn, declare and state as follows:

1. I am a co-inventor of the above-identified application and I have complete knowledge of all aspects of the invention. A copy of my C.V. was previously attached in a Response by Applicants dated December 30, 2009.

2. I have been requested by counsel to review the Official Action dated April 9, 2010 ("Office Action"), and in particular, to comment upon the grounds of the Examiner in concluding that the combination of International Publication No. WO 00/40669 to de Bruyn ("de Bruyn") and U.S. Patent 4,597,928 to Terentiev et al. teach a road construction material containing fulvic acid, as claimed.

4. I consider the Examiner's reasoning to be flawed for the following reasons. In the following paragraphs, I show that de Bruyn and Terentiev et al. fail to teach at least the feature of the instant claims of including fulvic acid.



5. As the Examiner acknowledges, de Bruyn does not teach or suggest any humic substance, such as fulvic acid, but instead, teaches the use of sulfur acid (e.g., col. 3, lines 8-10 of de Bruyn). Significantly, as de Bruyn is directed to road construction and related materials, one skilled in the art would rely on the teachings of de Bruyn for guidance in producing an improved road construction material. Since de Bruyn does not in any way teach or suggest a humic substance altogether, de Bruyn provides not the slightest motivation to one skilled in the art to include a humic substance, much less fulvic acid in particular.

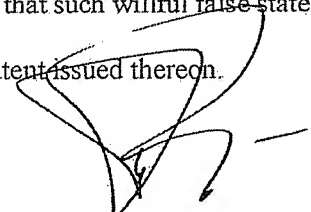
6. The Examiner contends that Terentiev et al. provides motivation for one to modify de Bruyn by the teaching in Terentiev et al. that sulfuric acid can be substituted with humic or fulvic acids (Examiner cites, in particular, col. 3, lines 59-63 of Terentiev et al.). However, Terentiev et al. is not directed to any composition remotely similar to a road construction material. Terentiev et al. does not even teach or suggest a soil-containing formulation. Instead, Terentiev et al. is directed to fiberboard materials produced from wood pulp. The fiberboard materials of Terentiev et al. would be useless within the scope of the instant claims. No correlation exists in the requirements for road construction and fiberboard materials. The two fields are unrelated, and thus, what is beneficial for one may be entirely detrimental to the other. Hence, one skilled in the art would not seek the guidance of Terentiev et al. in attempting to improve a road construction material.

7. Moreover, one skilled in the art of road construction materials would readily find unfounded the notion in Terentiev et al. that the same acidity can be provided whether sulfuric acid or a humic or fulvic acid is used. Even at higher temperatures and

at high concentrations of fulvic acid, the instant soil-containing construction materials would not achieve the same acidity as sulfuric acid on a mole-by-mole basis. Fulvic acid has not been found in the instant invention to have a significant impact on the acidity of the final product. Rather, fulvic acid has been found in the instant invention to significantly promote polymerization and crosslinking (i.e., curing) of the final product to a degree that was completely unexpected. This unexpected result is largely a result of the special interactions between fulvic acid and soil particles. Such special interactions are nowhere suggested in Terentiev et al. since Terentiev et al. does not teach or suggest soil.

8. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 11 May 2011



Henri A. de Bruyn